



# STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR  
KIM REYNOLDS, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES  
CHUCK GIPP, DIRECTOR

## MEMO

**TO:** Carmine Boal, Chief Clerk of the House  
Michael Marshall, Secretary of the Senate  
Ronald Parker, Senate Democratic Caucus Staff Director  
John Hodges, Senate Republican Caucus Staff Director  
Joseph Romano, House Democratic Caucus Staff Director  
Jeffrey Mitchell, House Republican Caucus Staff Director  
Julie Vande Hoef, Governor's Office

**FROM:** Chuck Gipp, Director, Dept. of Natural Resources

**Cc:** Bruce Trautman, Deputy Director, Dept. of Natural Resources  
Bill Ehm, Administrator, Environmental Services Division  
Sharon Tahtinen, Legislative Liaison, Dept. of Natural Resources  
Alex Moon, Chief, Land Quality Bureau

**DATE:** December 27, 2013

**RE:** Report on Mercury Thermostat Recycling

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I am pleased to provide this status report on the implementation of the Mercury Thermostat Recycling Program as required by Iowa Code 455D.16.

The purpose of Iowa code 455D.16 is to stop the sale and installation of mercury-added thermostats and require manufacturers of mercury containing thermostats to collect and recycle as many mercury-added thermostats as reasonably practicable. To ensure success of the program, the legislation directed the Department of Natural Resources (DNR) to submit an annual report to the General Assembly regarding the collection and recycling of mercury-added thermostats in the state and recommendations for statutory changes concerning the collection and recycling of mercury-added thermostats.

### **Status of the Mercury Thermostat Recycling Program<sup>1</sup>**

The Thermostat Recycling Corporation (TRC) is acting on behalf of 31 manufacturers representing 85 brands. TRC has 94 collection locations in Iowa, 29 of those are

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<sup>1</sup> This data is based on reports submitted by thermostat manufacturers for the calendar year 2012. The reports for 2013 are due to the DNR April 1, 2014.

Regional Collection Centers for household hazardous waste, 60 are wholesalers or distributors and four are contractors. There is also one retailer and one demolition company participating in the program. The program collected 2832 mercury thermostats containing 21.48 pounds of mercury.

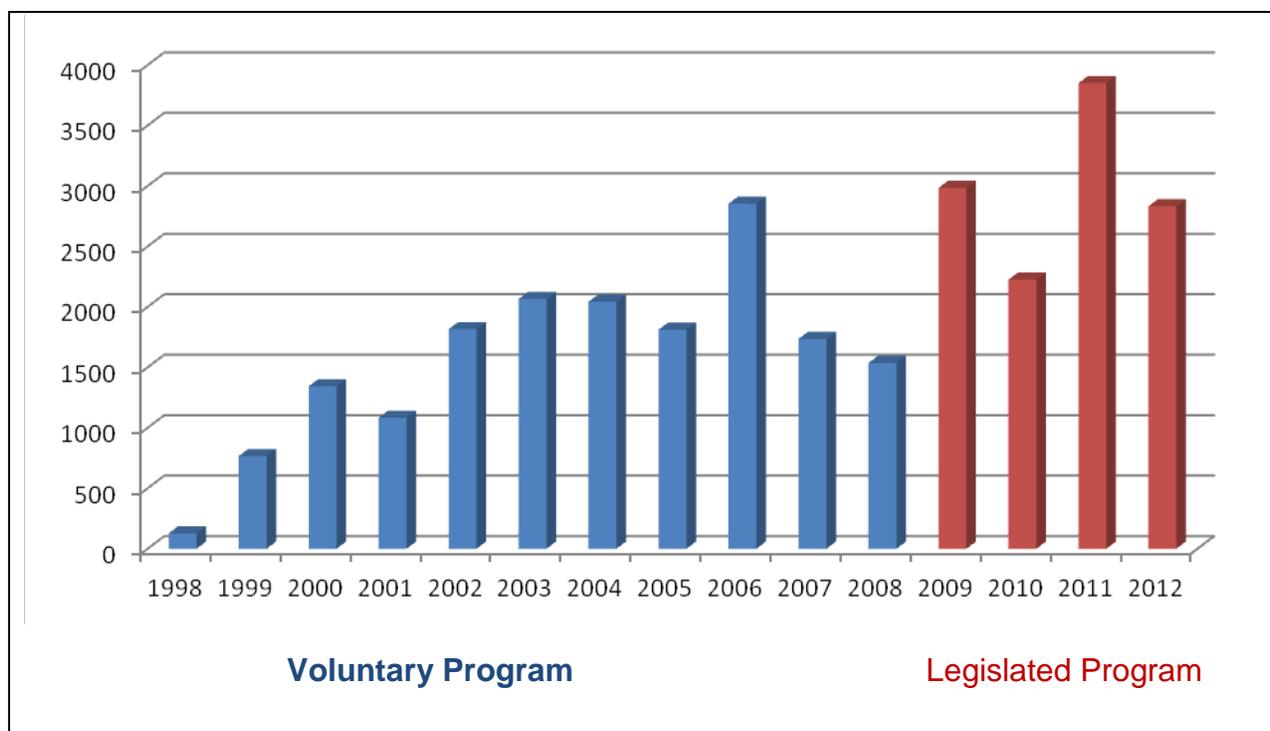
### **Actual Collection Rates**

The collection rate is the number of thermostats collected, divided by the number available for collection, expressed as a percentage. Although the number of thermostats collected is available from the TRC report, the number of mercury containing thermostats available for recycling is not as easily obtainable. To determine this, one needs to know the number of thermostats removed each year and what percentage of those contain mercury. The DNR has been unable to reach an agreement with industry representatives on what the collection goals should be.

### **Evaluation of the Effectiveness of the Thermostat Recycling Program**

Although 2009 was the first year of the legislated program, TRC has been collecting mercury thermostats in Iowa since 1998. Figure 1 shows the number of thermostats collected by TRC each year. In 2012 the number of thermostats collected was down 26% from the previous year. TRC stated in their report to the DNR that they are unsure why there is such variation in the number of thermostats collected in Iowa each year, although they did note that they saw declines in several states in 2012.

**Figure 1:**



### **Recommendations for statutory changes**

The DNR recommends that the legislation be amended to clarify that the collection goals shall be based on collection rates expressed as a percentage of out-of-service mercury added thermostats becoming waste annually. It should also require thermostat manufacturers to provide a statistically valid estimate of the mercury-containing thermostats that become waste in Iowa annually.

The DNR feels that the success of the thermostat recycling program cannot be adequately assessed without putting the number of mercury thermostats collected in the context of the number of thermostats discarded each year. Without knowing the number of the mercury thermostats that are available for recycling, it is impossible to evaluate the effectiveness of the program. Collection goals provide the motivation to increase collection while providing manufacturers the flexibility to design and implement the program in a way that works best for them. Without collection goals, it becomes necessary to be more prescriptive in how the program should be implemented.

In the absence of clearly defined and enforceable goals; the DNR believes a financial incentive, provided by the manufacturers to the HVAC contractors would greatly increase the number of thermostats collected. A similar financial incentive is provided to auto recyclers by auto manufacturers for the collection of mercury switches from end-of life vehicles.

In two states, Maine and Vermont, manufacturers are required to pay a \$5.00 bounty for each thermostat collected. Figure 2 shows that states with the bounty collected nearly four times as many thermostats per capita as were collected in Iowa and other states with a legislated program.

**Figure 2:**

<b>State</b>	<b>Bounty</b>	<b>Thermostats collected per 10,000 residents (2011)</b>
<b>Vermont</b>	\$5.00	57.02
<b>Maine</b>	\$5.00	49.81
<b>Iowa</b>	\$0	12.57
<b>Illinois</b>	\$0	5.62
<b>California</b>	\$0	4.96
<b>Montana</b>	\$0	2.74